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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
MARIAM, DANIEL G	
ART UNIT	**PAPER NUMBER**
2625	

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/892,617	FUJIWARA, YOKO	
	Examiner	Art Unit	
	DANIEL G. MARIAM	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments, see pages 2-4 of the remarks, filed May 16, 2005, with respect to the rejection(s)of claim(s) 1-23 under 35 USC 102 and 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Naoi, et al. (US Patent No. 6,721,463) which will be discussed in the rejections below.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4, 8-12 and 16-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Naoi, et al. (6,721,463).

With regard to claim 1, Naoi, et al discloses a character recognition unit that recognizes character codes from character images in image data (See for example, item 104, in Fig. 26); a conversion unit for converting character images to character code data according to character codes (See for example, col. 21, lines 25-29; and item 107, in Fig. 26); and a judgment unit that obtains a degree of character continuity, i.e., low and high reliability, which is a degree of continuity between a character image and neighboring character images thereof, for any character image for which a character code has been recognized by said character recognition unit, and that makes a judgment on whether, based on the degree of character continuity, said

character image should be represented by character code data, i.e., when the reliability of character recognition is high character code data is stored as management information or should be represented by image data, i.e., when the reliability of character recognition is low character image is stored (See items 106 and 107, in Fig. 26; and col. 21, lines 48-55).

With regard to claim 2, an image processing device as claimed in claim 1, wherein said judgment unit obtains said degree of character continuity based on at least *one of* a distance between said character image for which a character code has been recognized and neighboring character images thereof (See for example, col. 21, lines 37-40), a difference in font size between said character image for which a character code has been recognized and neighboring character images thereof, a difference in font type between said character image for which a character code has been recognized and neighboring character images thereof, a length of a character string in which said character image for which a character code has been recognized exists, or a difference in color between said character image for which a character code has been recognized and neighboring character images thereof.

With regard to claim 3, an image processing device as claimed in claim 1, wherein said judgment unit makes a judgment to convert said character image into character code data when said degree of character continuity is larger than a first prescribed value (if the reliability of character recognition higher than a predetermined threshold, Naoi, et al converts and stores the character image as character code, See for example, col. 21, lines 52-55).

With regard to claim 4, an image processing device as claimed in claim 1, wherein said character recognition unit detects a degree of character recognition certainty, which is a degree

of certainty in recognizing a character code from a character image, and said judgment unit makes the judgment on further based on said degree of character recognition certainty (See items 105 and 107, in Fig. 26; and col. 21, lines 31-55).

With regard to claim 8, an image processing device as claimed in claim 1, further comprising: a file generating unit that generates an electronic file containing character code data converted by said conversion unit (which reads on the storing of the character code data as management information, Fig. 26).

With regard to claim 9, claim 1 encompasses the limitation of this claim, and is rejected the same as claim 1. Thus, argument analogous to that presented above for claim 1 is equally applicable to claim 9. Naoi, et al further discloses a program product on a computer readable medium for image processing, said program product causing a computer to execute the function recited in this claim (See for example, Figure 5).

Claims 10, 11, and 12 are respectively rejected the same a claims 2, 3, and 4. Thus, arguments similar to those presented above for claims 2, 3, and 4 are respectively applicable to claims 10, 11, and 12.

Claim 16 is rejected the same as claim 8. Thus, argument analogous to that presented above for claim 8 is equally applicable to claim 16.

Claim 17 is rejected the same as claim 1. Thus, argument analogous to that presented above for claim 1 is equally applicable to claim 17. Claim 17 distinguishes from claim 1 only in that it recites the limitation a scanning device for scanning documents to obtain image data, and Naoi, et al (See for example, item 48, in Fig. 5) further teaches this feature.

With regard to claim 18, an image processing system as claimed in claim 17, wherein said image processing device further comprises a file generating unit that generates an electronic file containing character code data converted by said conversion unit (which reads on the storing of the character code data as management information, Fig. 26); and said image processing system further comprises a printer that prints images based on said electronic file (See for example, item 44, in Fig. 5).

With regard to claim 19, an image processing device as claimed in claim 1, wherein the image data representing said character image is any one of input image data and character image data (See for example, item 101, in Fig.26).

Claims 20 and 21 are rejected the same as claim 19. Thus, argument similar to that presented above for claim 19 is equally applicable to claims 20 and 21.

With regard to claim 22, 1) generating character code data of a character image from original image data (a character code is obtained from the original document image, See col. 21, lines 25-27; and Fig. 26); 2) generating character image data of the character image from the original image data (a character image data is obtained from the originally inputted document image, See col. 21, line25-27; and Fig. 26), and 3) employing at least *one of* the original image data, the character image data, and the character code data to represent the character image (See for example, col. 21, lines 48-58).

With regard to claim 23, wherein, in the step 3), *one of* the original image data, the character image data, and the character code data is selected to represent the character image (See item 106 or 107 or 108, in Fig. 26).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 5-7 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naoi, et al. (6,721,463).

With regard to claim 5, Naomi, et al discloses all of the claimed subject matter as already discussed above in paragraph 3, and incorporated herein by reference. Naomi, et al discloses wherein the judgment unit makes a judgment that said character image should be converted to character code data when said degree of character continuity is larger than a first prescribed value (See Fig. 26 or col. 21, lines 52-55). Although Naomi, et al does not expressly call for converting the character image into character code data when the degree of character recognition certainty is larger than a second prescribed value, it would have been an obvious matter of design choice to modify the generic predetermined threshold taught by Naoi, et al by having a second prescribed value, since no new or unexpected results are seen to be attained by providing the a second prescribed value and it appears that the generic predetermined threshold used in Naomi, et al would equally convert the character image into character code data using any threshold/prescribed value.

With regard to claim 6, an image processing device as claimed in claim 5, further comprising: a character image data generating unit that cuts out character images from said image data to generate character image data, wherein said judgment unit makes a judgment that

said character image data generating unit should generate said character image data for any character image whose degree of character continuity is larger than a third prescribed value, which is smaller than said first prescribed value, i.e., predetermined threshold, among character images judged not to be converted into character code data (which reads on item 106, in Fig. 26 or col. 21, lines 48-52).

With regard to claim 7, Naoi, et al discloses wherein said judgment unit makes a judgment that any character image whose degree of character continuity is smaller than a (third prescribed value, which is smaller than said first prescribed value), should be left intact in said image data, among character images judged not to be converted into character code data (See item 105 & 106, in Fig. 26).). Although Naomi, et al does not expressly call for judging that any character image whose degree of character continuity is smaller than a third prescribed value, which is smaller than said first prescribed value, it would have been an obvious matter of design choice to modify the generic predetermined threshold taught by Naoi, et al by having a third prescribed value, which is smaller than said first prescribed value, since no new or unexpected results are seen to be attained by providing the a third prescribed value and it appears that the generic predetermined threshold used in Naomi, et al would equally maintain the character image data that are not converted into character code data using any threshold/prescribed value.

Claims 13, 14 and 15 are rejected the same as claims 5, 6, and 7 respectively. Thus, argument analogous to that presented above for claims 5, 6, and 7 are respectively applicable to claims 13, 14, and 15.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL G. MARIAM whose telephone number is 571-272-7394. The examiner can normally be reached on M-F (7:00-4:30) FIRST FRIDAY OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BHAVESH M. MEHTA can be reached on 571-272-7453. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DANIEL MIRIAM
PRIMARY EXAMINER

July 12, 2005